A DEVICE FOR HOLDING A TEMPLATE FOR USE IN IMPRINT LITHOGRAPHY

ABSTRACT OF THE DISCLOSURE

[0196] Described are imprint lithography templates, methods of forming and using the templates, and a template holder device. An imprint lithography template may include a body with a plurality of recesses on a surface of the body. The body may be of a material that is substantially transparent to activating light. At least a portion of the plurality of recesses may define features having a feature size less than about 250 nm. A template may be formed by obtaining a material that is substantially transparent to activating light and forming a plurality or recesses on a surface of the template. In some embodiments, a template may further include at least one alignment mark. In some embodiments, a template may further include a gap sensing area. An imprint lithography template may be used to form an imprinted layer in a light curable liquid disposed on a substrate. During use, the template may be disposed within a template holder. The template holder may include a body with an opening configured to receive the template, a support plate, and at least one piezo actuator coupled to the body. The piezo actuator may be configured to alter a physical dimension of the template during use.